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ARMED FORCES RADIOBIOLOGY RESEARCH INSTITUTE
DEFENSE ATOMIC SUPPORT AGENCY
BETHESDA, MARYLAND 20014

AGENDA

11th MEETING OF BOARD OF GOVERNORS

	<u>TIME</u>	<u>SUBJECT</u>	<u>SPEAKER</u>
I.	0900 - 0910	Introduction	Lt Gen Donnelly Col Hekhuis CAPT Bratenahl
II.	0910 - 1000	Tour of Selected Facilities	Mr. Moser
	1000 - 1010	Coffee Break	
III.	1010 - 1020	Technological Problem Areas (TPA)	Col Brennan
IV.	1020 - 1135	Research Program Review	CAPT Bratenahl
	a. 1020 - 1040	"Investigation of the Role of Bacteria in Radiation Injury"	LCDR Webster
	b. 1040 - 1100	"A Progress Report on Radiation Incapacitation and Related Studies Conducted at AFRRI"	Lt Col Seigneur
	c. 1100 - 1115	"Behavioral Incapacitation Following Lethal Radiation Exposure"	Lt Kelly Walter Reed Army Institute of Research
	d. 1115 - 1135	"Depth Dose Evaluation"	LCDR Dowling
V.	1135 - 1200	Discussion	Lt Gen Donnelly



DEPARTMENT OF DEFENSE
DEFENSE ATOMIC SUPPORT AGENCY
WASHINGTON, D.C. 20301

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ADDRESS REPLY TO:
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26 July 1965

Colonel James T. Brennan
Armed Forces Radiobiology Research Institute
National Naval Medical Center
Bethesda, Maryland 20014

Dear Colonel Brennan:

The Minutes of the Eleventh Meeting of the Armed Forces Radiobiology Research Institute Board of Governors Meeting, held 13 July 1965, are forwarded for your information and retention.

Sincerely,

GERRIT L. HEKHUIS
Colonel USAF MC
Surgeon

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SUBJECT: Minutes of the Eleventh Meeting, Armed Forces Radiobiology
Research Institute Board of Governors, 13 July 1965.

1. Attendees:

Defense Atomic Support Agency

Lt. General Harold C. Donnelly, Director, DASA
Colonel Gerritt L. Hekhuis, Chief, Medical Division, DASA

Service Representatives

Army

Colonel Colin F. Vorder Bruegge, Commanding General, Medical
Research and Development Command, OSG
Lt. Colonel Mossman Roueche, Nuclear Energy Division, OSG
Lt. Colonel Joseph Brady, Deputy Director Neuropsychiatry, WRAIR
Lt. Colonel Kent T. Woodward, Division Nuclear Medicine, WRAIR
1st Lt. Dennis D. Kelly, Department Experimental Psychiatry, WRAIR

Navy

Rear Admiral R. B. Brown, Surgeon General, USN
Rear Admiral C. L. Andrews, Commanding Officer, NNMC
Rear Admiral L. C. Newman, Asst. Chief for Research and Military
Medical Specialties, Bureau of Medicine and Surgery

Air Force

Major General R. L. Bohannon, Surgeon General, USAF
Brig. General J. M. Talbot, Special Asst. for Medicine Research, OSG

AFRRI

Colonel James T. Brennan, Director, AFRRI
Captain C. G. Bratenahl, Deputy Director (Navy)
Commander S. E. Sykes, Executive Officer
Colonel D. H. Behrens, Head, Military Analysis Department
Lt. Col. L. J. Seigneur, Chairman, Radiation Biology Department
LCDR J. H. Dowling, Physical Sciences Department
LCDR J. B. Webster, Experimental Pathology Department
Mr. R. E. Carter, Chairman, Physical Sciences Department
Dr. S. J. Kaplan, Chairman, Behavioral Sciences Department
Dr. S. J. Baum, Chairman, Experimental Pathology Department
Mr. S. W. Porter, Head, Radiological Safety Department
Mr. R. A. Moser, Head, Technical Information and Services Department
Mr. B. Maury, Head, Program Coordination Office

2. The meeting was called to order by General Donnelly at 0900 hours, in the Board Room of the AFRRI. The minutes of the Tenth Meeting of the Board of Governors were approved as previously distributed to the members of the Board.

3. The Technological Problem Areas concept was discussed by Colonel James T. Brennan. This new concept (TPA's) which has been developed at AFRRI is designed to span the entire scope of activity within which the work of any DOD radiation research program must lie. This concept of 37 TPA's has been successfully used and has provided a thematic idea to which the work at AFRRI and other laboratories can be related.

4. The AFRRI Research Program Review. Captain Charles G. Bratenahl was the moderator of this discussion and introduced the following:

a. "Investigation of the Role of Bacteria in Radiation Injury". LCDR J. Blair Webster discussed his original technique i.e., washing and scraping the gut lining and assaying the virulence of this material by intraperitoneal injection. The upper, middle and lower thirds of the small intestine were studied separately.

b. "A Progress Report on Radiation Incapacitation and Related Studies Conducted at AFRRI". Lt. Col. Leslie J. Seigneur provided the Board with a brief summary of the various radiation incapacitation and related studies that have thus far been conducted at AFRRI. With respect to the rhesus monkey incapacitation studies, Col. Seigneur concluded that the three (3) DOD research groups (AFRRI, WRAIR, and SAM) are in good general agreement on the post-exposure response of that animal.

c. "Behavioral Incapacitation Following Lethal Radiation Exposure". Lt. Dennis D. Kelly, Head of the Behavioral Radiology Laboratory of the Department of Experimental Psychiatry, WRAIR, spoke to the Board concerning WRAIR data which provided them with a quantitative verification of the plateau phenomenon and revealed an interesting discovery showing that animal survival is related to the severity of the testing regimen it undergoes.

d. "Depth Dose Evaluation". LCDR Howard Dowling discussed radiation dosimetry in theory and in application. The discussion included dose rate in phantoms, the Texas Nuclear Corporation Accelerator, the AFRRI trailer and the calibration laboratory here at AFRRI. The AFRRI objective was to acquire and have the capability of making all of the standard kinds of radiation dose measurements that other laboratories are able to make and, when necessary, to develop new dosimetry techniques.

5. Next Board of Governors Meeting. The Chairman and the members of the Board discussed the date for the next meeting and tentatively set the date as Wednesday, 15 December 1965.

6. There being no further business of general interest the Board went into executive session.

7. The Board adjourned at 1230 hours.

A handwritten signature in cursive script, appearing to read 'G. L. HEKHUIS', written in dark ink.

G. L. HEKHUIS
Colonel, USAF, MC
Chief, Medical Division, DASA

file with 1st Army
Sawyer's meeting file
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MILITARY RADIOBIOLOGY

Technological Problem Areas

1. Ionizing Radiation Sources of Military Importance (Sources)
2. Real Radiation Fields of Military Importance (Real Fields)
3. Laboratory Simulation of Real Radiation Fields - Design and Reproduction (Simulated Fields)
4. The Units and Definitions Used in Military Radiobiological Dosimetry (Units)
5. Depth Dose Pattern Description in Large Animals (Depth Dose)
6. Military Radiobiology Dosimetry Techniques and Instrumentation (Dosimetry Techniques)
7. The Establishment of Exposure Criteria for Military Personnel (Exposure Criteria)
8. The Medical Aspects of Combat Radiac Systems (Radiac)
9. Search for a Militarily Useful Biological Indicator —
10. The Influence of Dose Rate on Response to Radiation Exposure (Dose Rate)
11. Recovery from Radiation Injury (Recovery)
12. The Relative Biological Effectiveness of the Ionizing Radiations (RBE) —
13. Dose Equivalent Studies (DE)
14. Performance Decrement due to Exposure to Ionizing Radiation (PD)
15. Behavioral and Psychological Effects of Radiation (Radiopsychology)
16. Radiation Ecology (Ecology)
17. The Radiotoxicity of Radioactively Contaminated Food and Water (Food and Water)
18. Special Inhalation Hazards (Inhalation)-
19. Beta Skin Hazards (Beta Hazards)
20. The Diagnosis of Radiation Injury (Diagnosis)

21. The Treatment of Radiation Injury (Treatment)
22. The Prognosis of Radiation Injury (Prognosis)
23. Prevention of Radiation Injury by Evasion
24. Prevention of Radiation Injury by Shielding
25. Prevention of Radiation Injury by Prophylactic Drugs
26. The Evaluation of Accidental, Combat, Therapeutic and Occupational Exposures of Man to Ionizing Radiation (Human Exposure)
27. Radiation Exposure and the Immunization Program of the Armed Forces (Immunization)
28. Genetic and In Utero Effects of Radiation (Genetics)
29. Radiation Hazards in the Storage and Handling of Nuclear Weapons (Storage)
30. The Systematic Review of Weapons Effects Data (Effects Review)
31. Survey of Radiation Hazards in Current Military Operations (Operations Research)
32. Clinical Applications of Radiation Laboratory Equipment (Clinical Applications)
33. Space Radiation Hazards (Space)
34. Biological Applications of Short Half-Life Isotopes (Isotope Production)
35. Forensic Applications of Neutron Activation Analysis
36. The History of Military Radiobiology (History)
37. Radiation Injury in Combination with Other Trauma (Combined Injury)